

CLAIMS:

What is claimed is:

1. Multi-layer elastic flat-shaped article having a predefined shape, comprising:
  - at least two outer layers made of a porous fibrous or filamentous batting; and
  - at least one inner layer, disposed between and adherent to a pair of said at least two outer layers, said inner layer being applied as at least one adhesive skein forming a latticework configuration, the adhesive skein comprising a thermoplast having elastic properties at room temperature, and being adapted to recover said latticework configuration after tensile loading to thereby allow said flat shaped article to be elastically stretched.
2. The article according to claim 1, wherein said adhesive skeins are applied using a printing process.
3. The article according to claim 2, wherein said printing process comprises a process selected from one or more of the group consisting of intaglio printing, flexoprinting and screen printing.
4. The article according to claim 1, characterized in that the adhesive skeins are applied as parallel strips.

5. The article according to claim 4, wherein said parallel strips are disposed along a path which is straight or meandering.

6. The article according to claim 1, wherein said adhesive skeins run in zig-zag or sinusoid curves that are specular to each other, and whose vertices touch or overlap, forming a waffle-like configuration.

7. The article according to claim 1, wherein said adhesive skeins are applied as interrupted skein segments.

8. The article according to claim 1, wherein fibrous or filamentous batting comprises polyolefins.

9. A method for manufacturing a multi-layer, elastic flat-shaped article having a predetermined shape and having at least two outer layers, and at least one inner layer, disposed between and adherent to a pair of said at least two outer layers, said inner layer being applied as at least one adhesive skein forming a latticework configuration, comprising the steps of:

providing the at least two outer layers;

depositing an adhesive skein between the at least two outer layers in a latticework configuration, the adhesive skein comprising a thermoplast having elastic properties at room temperature, by means of a printing process or extrusion of skein.

10. The method according to claim 9, wherein said flat shaped article is adapted to recover said predetermined shape after tensile loading, to thereby allow said flat shaped article to be elastically stretched.

11. The method according to claim 9, wherein an adhesive skein is applied by means of intaglio printing, flexoprinting or screen printing.

12. The method according to claim 9, wherein a plurality of adhesive skeins are applied in parallel straight strips or meandering strips.

13. The method according to claim 9, wherein said adhesive skeins run in zig-zag or sinusoid curves that are specular to each other, whose vertices touch or overlap, so that a waffle-like configuration results.

14. The method according to claim 9, wherein said adhesive skein is formed by a method comprising the steps of:  
printing a first room temperature-elastic thermoplast adhesive skein configuration on at least one outer layer; and

feeding a second room temperature-elastic thermoplast adhesive skein, which is glued together with the first skein via the still-hot thermoplast.

15. The method according to claim 9, wherein said depositing step comprises applying the adhesive by means of nozzles.

16. The method according to claim 15, wherein the outer layers are fed in a direction of movement, and the nozzles are displaced during application of adhesive in a path having a component perpendicular to the direction of layer movement.

17. The method according to claim 9, wherein said depositing step comprises feeding the adhesive from above, in a gap between two outer layers.

18. The method according to claim 9, wherein at least one of said outer layers comprises a porous fibrous or filamentous batting.

19. The method according to claim 18, wherein flat shaped article has an axis of elasticity transverse to plane defined by said outer layers, based on a configuration of the adhesive skein.